



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,660	11/14/2003	Frank G. Belmonte	37,481	9847

4249 7590 12/05/2006

CAROL WILSON
BP AMERICA INC.
MAIL CODE 5 EAST
4101 WINFIELD ROAD
WARRENVILLE, IL 60555

EXAMINER

OH, TAYLOR V

ART UNIT	PAPER NUMBER
----------	--------------

1625

DATE MAILED: 12/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/713,660

Applicant(s)

BELMONTE ET AL.

Examiner

Taylor Victor Oh

Art Unit

1625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 29 and 30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Final Rejection

The Status of Claims

Claims 1-30 are pending.

Claims 1-28 have been rejected.

Claims 29-30 have been withdrawn .

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

The rejection of Claims 1-28 under 35 U.S.C. 112, second paragraph, has been maintained due to the failure to modify the claims.

Claim Rejections - 35 USC § 103

Applicants' argument filed 9/12/2006 have been fully considered but they are not persuasive.

Art Unit: 1625

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The rejection of Claims 1-28 under 35 U.S.C. 103(a) as being unpatentable over

Baldwin et al (US 3,092,658) in view of D.M. Lewis et al (US 3,406,196).

The rejection of Claims 1-28 under 35 U.S.C. 103(a) as being unpatentable over Baldwin et al (US 3,092,658) in view of D.M. Lewis et al (US 3,406,196) has been maintained with reasons of record on 6/22/06.

Applicants' Argument

- I. Applicants argue the following issues:
 - a. None of Baldwin et al and D.M. Lewis et al teach or suggest a process whereby a portion or all of the total amount of the feed mixture is introduced into a second oxidation stage;

Art Unit: 1625

- b. Baldwin et al and D.M. Lewis et al do not disclose a process which introduces at least a portion of the condensed solvent from the first oxidation stage into the second oxidation stage ;
- c. None of the prior art teach the claimed process which achieves acceptable terephthalic acid product color with high oxygen utilization by controlling the vent oxygen and introducing a portion of the feed mixture into the second oxidation stage.

The applicants' argument have been noted, but these arguments are not persuasive.

First, with respect to the first ,second, and third arguments, the Examiner has noted applicants' argument. However, the primary prior art Baldwin et al expressly discloses the introduction of a portion or all of the total amount of the feed mixture into the second oxidation stage as well as the introduction of at least a portion of the condensed solvent from the first oxidation stage into the second oxidation stage in the following paragraphs below:

Art Unit: 1625

10 to the first vessel 11 and the partially oxidized product which is withdrawn from the first vessel through line 31 is introduced by pump 32 to the upper part of second oxidizing vessel 33. Similarly, the incompletely oxidized product leaving vessel 33 by line 34 is introduced by pump 35 to final oxidizing tower 36. In this multi-vessel system air or oxygen-enriched air may be introduced at the base of the final vessel 36 through line 37, the amount of oxygen thus introduced being controlled by valve 38 to maintain an oxygen content in the off-gases from vessel 36 below about 8 volume percent. In this example each (see col. 4 ,lines

2-12).

It may be possible to effect the desired oxidation countercurrently in a single oxidizing vessel, particularly if the vessel is divided into a plurality of zones by baffles 17 6 and 18 and provided with impeller type mixers 19, 20 and 21 in the three zones. Oxygen-depleted gas and vapors are withdrawn from the top of the oxidizing vessel through line 22 to cooler or condenser 23 and thence to receiver 24, the condensate being returned preferably by gravity 6 feed through line 25 to the oxidizing vessel and the uncondensed gas being introduced by line 26 at the base of absorber 27 wherein it is scrubbed with about 560 pounds per hour of water introduced through line 28 for recovering acetic acid from inert gas which is vented to 7 the atmosphere through line 29. Acid-containing water is withdrawn from absorber 27 through line 30.

(see col. 3 ,lines 58-72). Also, the primary prior art Baldwin et al does teach clearly them from the figure 2 as shown below :

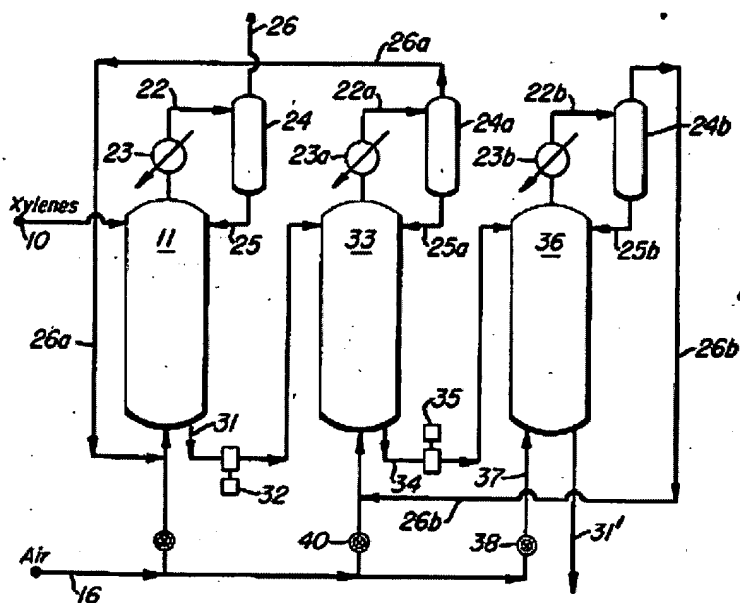


Fig. 2

From the aboves, it becomes clear that , just like the claimed invention, the primary prior art , Baldwin et al, can achieve the same degree of acceptable terephthalic acid product color with high oxygen utilization by controlling the vent oxygen and introducing a portion of the feed mixture into the second oxidation stage. Therefore, the primary prior art is still relevant to the claimed invention.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

Art Unit: 1625

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Taylor Victor Oh whose telephone number is 571-272-0689. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas McKenzie can be reached on 571-272-0670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1625

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Taylor Victor Oh, MSD, LAC
Primary Examiner
Art Unit : 1625

11/24/06